

CLAIMS

1. Automatic transmission, specially for a motor vehicle, comprising one drive shaft (7), one driven shaft not co-axial to the drive shaft (7), one planetary gear co-axial to the drive shaft (7) and having at least one planetary gear set (14) and at least one switch element (10) for selective transmission of an input rotational speed of the drive shaft (7) to an output element of the planetary gear and one chain drive (18) of constant ratio abutting in axial direction directly on a transmission housing wall (2) and whose drive wheel (19) is connected with the output element of the planetary gear and situated co-axially to the drive shaft (7) and whose driven wheel (22) is operatively connected with the driven shaft via a constant ratio, characterized in that the drive wheel (19) of the chain drive (18) radially overlaps at least partly in axial direction one switch element (10) axially directly abutting on the side thereof remote from the transmission housing wall (2).

2. Automatic transmission according to claim 1, characterized in that the drive wheel (19) of the chain drive (18) abuts directly in axial direction on one disc carrier (11) of the switch element (10).

3. Automatic transmission according to claim 1 or 2, characterized in that one servo device (12) of the switch element (10) abutting on the drive wheel (19) of the chain drive (18) is situated upon the side of the switch element (10) facing the drive wheel (19) of the chain drive (18).

4. Automatic transmission according to claims 1, 2 or 3, characterized in that the drive wheel (19) of the chain drive (18) radially overlaps at least partly in axial direction discs (13) of the switch element (10) that abut on the drive wheel (19) of the chain drive (18).

5. Automatic transmission according to any one of claims 1 to 4, characterized in that the switch element (10) abutting on the drive wheel (19) of the drive chain (18) is designed as clutch.

6. Automatic transmission according to any one of claims 1 to 4, characterized in that the switch element (10) abutting on the drive wheel (19) of the drive chain (18) is designed as brake.

7. Automatic transmission according to any one of claims 1 to 6, characterized in that the drive wheel (19) and the driven wheel (22) of the chain drive (18) are centered on the same housing element.

8. Automatic transmission according to any one of claims 1 to 7, characterized in that the drive wheel (19) of the chain drive (18) is supported upon one projection of the transmission housing wall (2) extending axially in direction of the chain drive (18).

9. Automatic transmission according to any one of claims 1 to 7, characterized in that the drive wheel (19) of the drive chain (18) is supported on one shaft fixedly connected with a transmission housing (1).

10. Automatic transmission according to claim 8 or 9, characterized in that the drive wheel (19) of the chain drive (18) is axially fixed, specially by a guard ring (28), on the projection of the transmission housing wall (2) extending axially in direction of the chain drive (18) or on the shaft fixedly connected with the transmission housing (1).

11. Automatic transmission according to claims 8, 9 and 10, characterized in that the bearing of the drive wheel (19) of the chain drive (18) is designed as needle gearing or roller bearing, specially with a radial bearing (25), an axial bearing (26) on the side of the transmission housing wall and an axial bearing (27) on the side of the switch element.

12. Automatic transmission according to claim 11, characterized in that the radial bearing (25) is axially fixed, specially by a guard ring (28), on the projection of the transmission housing wall (2) which extends axially in direction of the chain drive (18) or upon the shaft fixedly connected with the transmission housing (1), the drive wheel (19) of the chain drive (18) axially supporting itself in direction opposite to the transmission wall (2) on a structural element adjacent to the transmission housing (1), specially on a flange-shaped section of the drive shaft (7) or on the disc carrier (11) of the switch element (10) abutting on the drive wheel (19) of the chain drive (18).

13. Automatic transmission according to any one of claims 1 to 12, characterized in that the transmission housing wall (2) abutting on the chain drive (18) faces one prime mover of the automatic transmission.

14. Automatic transmission according to claims 9 and 13, characterized in that the shaft upon which the drive wheel (19) of the chain drive (18) is supported is designed as stator shaft (8) of a hydrodynamic torque converter (4).

15. Automatic transmission according to claims 9, 13 and 14, characterized in that an oil pump (9) of the automatic transmission is integrated in the stator shaft (8).

16. Automatic transmission according to any one of claims 1 to 15, characterized in that for lubrication of the chain drive a spray pipe is provided by which the lubricant is sprayed upon an inner side of one chain of the chain drive.

17. Automatic transmission according to any one of claims 1 to 15, characterized in that for lubrication of the chain drive (18), in the shaft upon which the drive wheel (19) of the chain drive (18) is supported or in the housing projection upon which the drive wheel (19) of the chain drive (18) is supported, at least one hole or aperture is integrated directly through which lubricant is supplied to one chain (23) of the chain drive (18).

18. Automatic transmission according to any one of claims 1 to 17, characterized in that the drive wheel (19) of the chain drive (18) additionally has one parking interlock gear (33) in which can engage the parking interlock pawl (34) of the automatic transmission for locking the driven wheel of the automatic transmission.

19. Automatic transmission according to any one of claims 1 to 17, characterized in that the driven wheel (22) of the chain drive is connected with a parking interlock gear (32), wherein the parking interlock gear (32) has a parking interlock toothing (33) in which one parking interlock pawl (34) of the automatic transmission can engage for locking the driven shaft of the automatic transmission.

20. Automatic transmission according to any one of claims 1 to 17, characterized in that the driven wheel (22) of the chain drive additionally has one

parking lock tothing (33) in which a parking interlock pawl (34) of the automatic transmission can engage for locking the driven shaft of the automatic transmission.

21. Automatic transmission according to any one of claims 1 to 20, characterized in that one ring gear (15) of the planetary gear set (14) forms the output element of the planetary gear.

22. Automatic transmission according to any one of claims 1 to 21, characterized in that the driven wheel (22) of the chain drive is connected with one sun gear (36) of one output planetary gear set (35), that one ring gear (37) of the output planetary gear set (35) is connected with the housing (1) of the automatic transmission and that the driven shaft of the automatic transmission is operatively connected with one web (38) of the output planetary gear set (35).